



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,759	11/27/2001	Choi Wonmun	AOK-0200	7553

7590 10/20/2004

RADER, FISHMAN & GRAUER, PLLC
Suite 501
1233 20th Street, N.W.
Washington, DC 20036

EXAMINER

SELLERS, ROBERT E

ART UNIT PAPER NUMBER

1712

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,759

Applicant(s)

WONMUN ET AL.

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 5-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Claims 3-7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 1, 2004.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 2 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

2. The dihalogen compound X-R-X embraces species wherein R is $-(CHCH_2O)_2CH-CH_2-$ (specification, page 5, line 13). Such a moiety contains a dangling valence in the -CH- portion. It is unclear what is bonded to the fourth valence of the -CH- substituent.

3. The source of the sulfide linkages in Example 4 on page 8 is unclear since the reactants sodium tetrafluoride and 1,2-bis(2-chloroethoxy)methane do not contain any sulfur atoms.

Art Unit: 1712

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4. Yatsuyanagi et al. (cols, 21, 30 and 37, Polysulfide rubber 1) shows a method for producing a polysulfide by reacting 1,2-dichloroethane and sodium tetrasulfide in the presence of a calculated amount of 454.7 parts by weight (per 100 parts by weight of the 1,2-dichloroethane) of methanol and benzyl chloride. However, the formula for the polysulfide is linear (col. 2, lines 31-35, formula I) as opposed to the claimed cyclic structure of formula (I).

5. The remainder of the cited prior art sets forth the preparation of polysulfides which are not characterized as cyclic. Furthermore, only Japanese Patent No. 46-27543 and the article by Cranker et al. set forth any solvents. However, the solvents are not within the realm of the claimed incompatible mixed solvent of a hydrophilic and lipophilic solvent.

(571) 272-1093 (Fax no. (703) 872-9306)
Monday to Friday from 9:30 to 6:00 EST

Any administrative inquiries can be obtained by accessing the Patent Application Information Retrieval (PAIR) system. Published applications are available through either private or public PAIR. Unpublished applications are available via private PAIR only. Consult <http://pair-direct.uspto.gov> or contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



Robert Sellers
Primary Examiner
Art Unit 1712

rs
10/15/04